

SEQUENCE LISTING

<110> KYOWA HAKKO KOGYO CO., LTD.

<120> Pharmaceutical composition comprising recombinant antibody against CCR4

<130> 00005.001295

<150> JP04/018430

<151> 2004-12-03

<150> JP2003-406590

<151> 2003-12-04

<150> JP2004-155141

<151> 2004-05-25

<160> 18

<170> PatentIn Ver. 2.1

<210> 1

<211> 360

<212> PRT

<213> Homo sapiens

<400> 1

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Gly Ile Lys Ala Phe Gly Glu Leu Phe Leu Pro Pro Leu Tyr Ser Leu
          35          40          45
Val Phe Val Phe Gly Leu Leu Gly Asn Ser Val Val Val Leu Val Leu
          50          55          60
Phe Lys Tyr Lys Arg Leu Arg Ser Met Thr Asp Val Tyr Leu Leu Asn
          65          70          75          80
Leu Ala Ile Ser Asp Leu Leu Phe Val Phe Ser Leu Pro Phe Trp Gly
          85          90          95
Tyr Tyr Ala Ala Asp Gln Trp Val Phe Gly Leu Gly Leu Cys Lys Met
          100          105          110
Ile Ser Trp Met Tyr Leu Val Gly Phe Tyr Ser Gly Ile Phe Phe Val
          115          120          125
Met Leu Met Ser Ile Asp Arg Tyr Leu Ala Ile Val His Ala Val Phe
          130          135          140
Ser Leu Arg Ala Arg Thr Leu Thr Tyr Gly Val Ile Thr Ser Leu Ala
          145          150          155          160
Thr Trp Ser Val Ala Val Phe Ala Ser Leu Pro Gly Phe Leu Phe Ser
          165          170          175
Thr Cys Tyr Thr Glu Arg Asn His Thr Tyr Cys Lys Thr Lys Tyr Ser
          180          185          190
Leu Asn Ser Thr Thr Trp Lys Val Leu Ser Ser Leu Glu Ile Asn Ile
          195          200          205

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Leu Gly Leu Val Ile Pro Leu Gly Ile Met Leu Phe Cys Tyr Ser Met
 210 215 220
 Ile Ile Arg Thr Leu Gln His Cys Lys Asn Glu Lys Lys Asn Lys Ala
 225 230 235 240
 Val Lys Met Ile Phe Ala Val Val Val Leu Phe Leu Gly Phe Trp Thr
 245 250 255
 Pro Tyr Asn Ile Val Leu Phe Leu Glu Thr Leu Val Glu Leu Glu Val
 260 265 270
 Leu Gln Asp Cys Thr Phe Glu Arg Tyr Leu Asp Tyr Ala Ile Gln Ala
 275 280 285
 Thr Glu Thr Leu Ala Phe Val His Cys Cys Leu Asn Pro Ile Ile Tyr
 290 295 300
 Phe Phe Leu Gly Glu Lys Phe Arg Lys Tyr Ile Leu Gln Leu Phe Lys
 305 310 315 320
 Thr Cys Arg Gly Leu Phe Val Leu Cys Gln Tyr Cys Gly Leu Leu Gln
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 <213> Homo sapiens

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 Asn Tyr Tyr Leu Tyr Glu Ser Ile Pro Lys Pro Cys
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<400> 3
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 Pro Cys

<210> 4
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 <212> PRT
 <213> Homo sapiens

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<212> PRT
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<213> Mus musculus

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 Pro Gly Gly Ser Leu Lys Ile Ser Cys Ala Ala Ser Gly Phe Ile Phe
 35 40 45
 Ser Asn Tyr Gly Met Ser Trp Val Arg Gln Thr Pro Asp Met Arg Leu
 50 55 60
 Glu Trp Val Ala Thr Ile Ser Ser Ala Ser Thr Tyr Ser Tyr Tyr Pro
 65 70 75 80
 Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Glu Asn
 85 90 95
 Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ser Glu Asp Thr Gly Ile
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 Gly Arg Gly Thr Leu Val Thr Val Ser Ala
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 35 40 45
 Val His Ile Asn Gly Asp Thr Tyr Leu Glu Trp Tyr Leu Gln Arg Pro
 50 55 60
 Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
 65 70 75 80
 Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 85 90 95
 Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys
 100 105 110
 Phe Gln Gly Ser Leu Leu Pro Trp Thr Phe Gly Gly Gly Thr Arg Leu
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Glu Ile Arg Arg
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<210> 13
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<213> Artificial Sequence

<220>
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35 40 45
Ala Thr Ile Ser Ser Ala Ser Thr Tyr Ser Tyr Tyr Pro Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95
Ala Arg His Ser Asp Gly Asn Phe Ala Phe Gly Tyr Trp Gly Gln Gly
100 105 110
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<213> Artificial Sequence

<220>
<223> Synthetic peptide

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35 40 45
Ser Thr Ile Ser Ser Ala Ser Thr Tyr Ser Tyr Tyr Pro Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg His Ser Asp Gly Asn Phe Ala Phe Gly Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
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 <212> PRT
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 35 40 45
 Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95
 Ser Leu Leu Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

<210> 16
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 20 25 30
 Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Thr Ile Ser Ser Ala Ser Thr Tyr Ser Tyr Tyr Pro Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Tyr Tyr Cys
 Page 6

85 90 95
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 100 105 110
 Thr Leu Val Thr Val Ser Ser
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<210> 17
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 <212> PRT
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 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe Ser Asn Tyr
 20 25 30
 Gly Met Ser Trp Val Arg Gln Ala Pro Asp Lys Arg Leu Glu Trp Val
 35 40 45
 Ala Thr Ile Ser Ser Ala Ser Thr Tyr Ser Tyr Tyr Pro Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95
 Ala Arg His Ser Asp Gly Asn Phe Ala Phe Gly Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
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<210> 18
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 20 25 30
 Asn Gly Asp Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
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65					70					75				80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln
				85					90					95
Ser	Leu	Leu	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile
			100					105					110	Lys